Annual Meeting of
Maryland Vegetable Growers Association
Wednesday, January 7, 1942

A.M. Morning

9:30 Call to order - President H. J. W. Rayner.
Whats' new in Vegetable Varieties? H. A. Hunter Discussion Leader
Fertilizer Outlook for 1942 H. R. Smalley National Fertilizer Association.
New Trends in Fertilizer Applications for Vegetables - C. H. Mahoney, Discussion Leader.
Newer Developments in Insect and Disease Control - E. N. Cory, R. A. Jehle, Discussion Leaders.

Report of Committees.
Recess.

Afternoon
(Joint session with Horticultural Council.)

P.M.
1:30 What Improvements can and should be Made in Marketing Horticultural Produce During the Emergency? R. B. Corbett, Director Experiment Sta., Discussion Leader.

Production Goals for 1942.
Topics for Discussion and Cooperative action:

1. Possible modification of Wage and Hour Law to Aid Horticultural Growers in the Emergency.
2. Can the Canner Handle the Volume of Food set up in the Goals by the S.M.A? F. M. Shook, Tri-State Packers Assoc. Discussion Leader
3. What can be Done to Prevent Market Gluts?

1942 NEWS*LETTER

January	Echoes from the Annual Meetings The Garden Campaign
February	Goverment Program For Canned Tomatoes Know Your Onions
March	Freezing Vegetables Starter Solutions A Vitamin C Calendar
April	Victory Gardens Hybrid Sweet Corns
May	Farm Labor Situation in Maryland Production of Vegetable Seeds
June	Soy Bean Tests Report on Potato Crop Storage Of Vegetable Seeds
July	Potato and Vegetable Show Soil Erosion Hunger Signs in Crops
August	Victory Garden Harvest Shows Troubles Multiply Fertilizer Situation
September	Nitrogen for Next Year Premium List
October	Late Potato Blight Economic Production of Vegetables The Annual Meetings
November	A Rainy Season Greater Production of Tomatoes for Canning The Home Vegetable Garden Ten-Ton Tomato Contest
December	Come to the Annual Meeting Program

MARYLAND
VEGETABLE GROWERS' ASSOCIATION

W. R. BALLARD
SECRETARY-TREASURER
COLLEGE PARK, MARYLAND

NEWS LETTER

Issued by
The Maryland Vegetable Growers Association
W. R. Ballard
Secretary-Treasurer

Vol. XIX. No 1. College Park, Maryland January 1942

Echoes From The Annual Meetings

The meetings were unusually well attended this year-the attendance at the morning session being about 60 and at the afternoon session held jointly with the Horticultural Council nearly 100. Several timely questions were presented and at times the discussions were quite lively.

President Rayner called the first session to order and introduced Herman Hunter who opened the discussion on the subject, "What's New in Vegetable Varieties?"

C. E. Cox reported that the new Pan American tomato set well with excellent quality tomatoes but on account of the dry season the fruit did not size up well, However it was considered that it did as well as Marglobe and is more disease resistant.

R. G. Rothgeb indicated that the Golden Cross Bantam group of sweet corn hybrids appeared to be the most satisfactory for the second early season.

Some of the later types are promising. Considerable variation was noted in the damage done to different varieties by the corn ear worm. Golden Cross Bantam showed about 50% attack , but others varied from 100% down to as low as 9%. However, it was not determined whether this variation was due to any degree of resistance or whether it just showed variation in distribution of infestation.

F. R. Todd, said no important new varieties of snap beans had been tried, but new disease resistant strains were distinctly promising.

J. P. Brown, indicated that of the new watermelons tested, Hawkesbury had proved to be quite wilt resistant, but the melons did not attain sufficient size to fill the needs of the commercial grower. Some of Dr. Mahoney's cantaloupe selections appeared to be promising.

E. P. Walls reported tests of ten varieties of edible soy beans. All varieties were quite productive. The soy beans are high in protein, and since their yield is considerably higher than peas, it was suggested that they might have an important place in the home garden as well as for commercial canning.

Early sweet peas of much better quality than Alaska were available, and should not be overlooked in selecting varieties for planting. Pride, Dark Podded Laxton, Laxton Cropper and Hardelah were mentioned, Thomas Laxton was suggested for market.

H. R. Smalley, representing the American Fertilizer Association, reported that there was a good prospect that ample fertilizer supplies would be available and that the price while somewhat higher should not be unreasonable. America has plenty of

raw products and plant capacity for its manufacture. Immense quantities of sulphate of ammonia is resulting as a by-product from the greatly expanded capacity for steel production.

One bottle neck may be transportation. Phosphate rock formerly moved by boat must now be moved largely railroad. The food program is so important that the government will make every effort to see that the needs of farmers for fertilizer are supplied.

Since Baltimore is one of the largest producing areas in the world, Maryland farmers should be in a preferred position. The government is taking 2/3 of the burlap so that other forms of bags for fertilizer may be necessitated. It now looks like some sort of bags will be available. The question of tires for truck transportation has not been worked out but probably will be by spring. Farmers were urged to order early and get their fertilizer into their barns so as to be on the safe side.

Castillo Graham said that rotenone was rapidly taking the place of arsenicals residues on edible products. Rotenone comes from derris or cube roots imported largely from South America.

A 3/4 % rotenone dust or 4% spray had proved effective against the Mexican bean beetle when applied in time to catch the first broads.

Lee Towson reported that he had had good results with this spray in two applications ten days apart just as the eggs began to hatch. One application of dust was reported as having given good commercial control on the Eastern Shore.

Trap asparagus plants left to grow up in the spring and treated with rotenone was suggested as a good control measure for the asparagus beetle.

A 3% micotine spray was recommended for controlling the cucumber and cantaloupe aphis.

J. P. Brown reported that a 3% dust applied with an apron gave at 95% kill.

Rotenone dust gives fairly good control of the striped and spotted cucumber beetles. Extra plants should be grown to spread the damage. Wilt is spread by these beetles.

Rotenone will control flea beetles on most things. Damage from squash vine borer is checked by covering stems beyond point of attack by soil so that new roots are produced at the nodes. Pulling up the old vines and burning helps in the control.

Tomato horn worms are often quite plentiful and destructive. Eight pounds per acre of calcium arsenate applied eight to ten days before harvest gives good control. Rotenone has been fairly effective.

The afternoon session was devoted to a discussion of marketing, and the problems connected with increased production and handling of canning crops. A committee was appointed to deal with the State Civilian Defense in working out problems of vital importance to growers.

Owing to the press of business there was no time to consider the reports of committees. However, the nominating committee recommends that the present officers hold over for another year. If no objection is registered by the members. This will be done.

Mr. Egbert Hawkins, for the auditing committee reports that the treasurer's accounts were found to be in order. The balance in the treasury as of December 31. 1941 is $94.87.

Dues for the year 1942 are now payable. A red check mark here will indicate that your dues have been paid. The hint is obvious.

The vegetable and Potato Exhibit was not quite as large as that of 1941 but the quality of the displays was in general quite high. Some of the new varieties of potatoes such as Sequoia were well represented. There were 20 entries of vegetables and 74 entries of potatoes.

The Garden Campaign

The entrance of the United States into the war has tremendously increased interest in the vegetable garden. Many organizations are getting behind the movement and need guidance. The leaders have a task to guide these well meaning groups into efforts which will be sane and helpful. It is hoped that some of the misguided effort so evident in the last war can be avoided. There is no present need for tearing up parks, lawns, and school grounds to plant to vegetables. There is a scarcity of seed of some varieties, fertilizers, and spray materials are none too plentiful and it will be too bad to have these wasted. Then, again the commercial growers are quite capable of producing most the products needed more efficiently than amateur gardeners, if they are provided needed labor and machinery. It is probably true that a great many more farmers, than are now doing so could produce their main supply of vegetables to advantage, thus cutting down on the necessity for transportation and delivery costs.

Suburbanites who have space and some experience can generally do a good job, but Secretary Wickard is advising urban dwellers and others to stick to their flower and ornamental plantings and leave to better qualified operators the main job of producing food.

TWELVTH ANNUAL MARYLAND WHITE AND SWEET POTATO SHOW

Lord Baltimore Hotel, Baltimore, Maryland, January 6-8, 1942

Sponsored by the

Maryland Farm Bureau Federation and Maryland Vegetable Growers Association

Regulations

Each exhibit shall consist of sixteen potatoes. Only one exhibit may be entered in any class.

No entry fee will be charged. One dollar membership fee will be subtracted from premiums of all exhibitors in adult classes who are not members of the Maryland Vegetable Growers Association. Prize winners in the Junior classes will be made honorary members of the Maryland Vegetable Growers Association.

Exhibits may be entered only by the grower and owner of the field in which the tubers were produced.

Exhibits should be sent by prepaid express or parcel post to the State Potato Show, Lord Baltimore Hotel, C/O Dr. R. A. Jehle, Baltimore, Maryland, and should arrive not later than January 6th. Judging will begin at 10:00 A. M. on January 7 so it is necessary to have the potatoes at the hotel before that time.

Arrangements for the return of the exhibits must be made by the exhibitors; otherwise, the exhibits will be disposed of by the Maryland Vegetable Growers Association.

Group 1 - Adult Certified

Open to all potato growers in Maryland who have produced seed potatoes eligible for certification. Exhibits must be selected from potatoes grown in fields which have passed all certification requirements of the Maryland Seed Certification Board in two field inspections.

		Premiums
Class 1.	Early and medium early varieties. (Irish Cobbler, Warba, Triumph, Chippewa, Katahdin, etc.)	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class 11.	Rural (Russet & Smooth, including Mason, Rural New Yorker, Early Maine, Pionner Smooth Rural, etc.)	1st. $4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class 111.	Sequoia	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class IV.	Dakota Red	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class V.	Any other Late Variety. Variety must be designated.	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00

Class VI.	Any Variety of Sweet Potatoes Variety must be designated.	1st.$4.00, 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00

Group II - Adult Commercial

Open to all potato growers in Maryland.

Class VII.	Early and Medium early varieties. (Irish Cobbler, Warba, Triumph, Katahdin, Chippewa, etc.)	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class VIII.	Smooth Rural	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class IX.	Russet Rural	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class X.	Sequoia	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class XI.	Any other Late Variety Variety must be designated.	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class XII.	Sweet Potatoes, Maryland Golden Sweet	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00
Class XIII.	Sweet Potatoes, Any other Variety, Variety must be designated.	1st.$4.00; 2nd. $3.00; 3rd. $2.00 4th.$1.50; 5th. $1.00; 6th. $1.00

Group III - 4-H Club Certified and Commercial

Open to all 4-H Club members listed in the State Office who had potatoes for their project.

Class XIV.	Early Varieties (Irish Cobbler, Warba, Bliss Triumph, etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd.$1.50 4th. $1.00; 5th. $1.00; 6th.Ribbon
Class XV.	Medium Late Varieties (Green Mountain, Katahdin, Chippewa, etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd.$1.50 4th. $1.00; 5th. $1.00; 6th.Ribbon
Class XVI.	Late Varieties (Rurals, Dakota Red, Sequoia, etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd.$1.50 4th. $1.00; 5th. $1.00; 6th.Ribbon

Group IV - F. F. A. Certified and Commercial

Open to all F. F. A. members who have potatoes for their project.

Class XVII.	Early Varieties (Irish Cobbler, Warba, Bliss Triumph, etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd. $1.50; 4th. $1.00; 5th. $1.00; 6th. Ribbon
Class XVIII.	Medium Late Varieties (Green Mountain, Katahdin, Chippewa, etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd. $1.50 4th. $1.00; 5th. $1.00; 6th. Ribbon
Class XIX.	Late Varieties (Rurals, Dakota Red, Sequoia etc.) Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd. $1.50 4th. $1.00; 5th. $1.00; 6th. Ribbon

Group V - 4-H or F. F. A. Certified or Commercial

Class XX.	Sweet Potatoes, Any Variety Variety must be designated.	1st. $3.00; 2nd. $2.00; 3rd. $1.50 4th. $1.00; 5th. $1.00; 6th. Ribbon

11/14/41

NEWS LETTER

Issued by

The Maryland Vegetable Growers Association
W. R. Ballard
Secretary-Treasurer

Vol XIX. No 2 College Park, Maryland February 1942

GOVERNMENT PROGRAM FOR CANNED TOMATOES

On December 19, 1941, Secretary Claude R. Wickard, of the U.S. Department of Agriculture, announced a program for canned tomatoes for the purpose of providing a pack of 40,000,000 cases in 1942 to meet wartime needs. This goal is about 25 per-cent higher than the 1941 pack.

The Department of Agriculture, through the Agricultural Marketing Administrator will purchase all quantities of 1942 canned tomatoes offered to it through December 31, 1942, at the base price of 95¢ per dozen No. 2 cans, f.o.b. cannery, for U. S. Grade C (standard) quality, provided that the canner making the offer has been certified by the USDA State War Board as having agreed to contract with growers to the full capacity of his plant at not less than the minimum price set for the area. For Maryland, this price is $21.00 per ton or 35¢ per 5/8 bushel basket. The minimum prices set for other states vary from $16.50 per ton in the northwestern states to $22.00 per ton in New Jersey.

These minimum prices apply only to contract tomatoes. There is definitely no price set for tomatoes grown on the open market. Furthermore, in order to be eligible for certification to sell to the Department of Agriculture at the 95¢ per dozen price for canned tomatoes, the canner must not buy any open-market tomatoes during the entire season.

A frequently asked question has to do with the allotment of tinplate and other priorities materials for canners who do not cooperate with the program by contracting with growers for their entire requirements of raw product. No official statement has been made to indicate that such canners would not be allowed the use of these materials. The only official information bearing on this point is a statement by the Secretary of Agriculture that aid will be given cooperating growers and canners in obtaining materials and facilities for producting and canning the crop.

Know Your Onions

While the onion is not a major crop in Maryland there may be growers who will be interested in Miscellaneous Publication On. 435, entitled, "Descriptions of Types of Principal American Varieties of Onions." This has been prepared jointed by Specialists of the United States Department of Agriculture; Massachusetts State College and the Experiment Stations of California, Ohio, Texas, and Utah. In addition to the careful descriptions given, the following varieties are illustrated in color: Ebenezer, Southport yellow Globe, Yellow Globe Danvers, Australian Brown, Yellow Bermuda, Early Grano, Sweet Spanish, White Portugal, Red Creole, California Early Red, Red Wethersfield, and Southport Red Globe.

This publication is listed for sale at 50 cents by the Superintendent of Documents, Washington, D. C.

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Some members of the January issue slipped through without being marked in red showing payment of dues. This can be disregarded by those holding membership cards.

NEWS LETTER

Issued by

The Maryland Vegetable Growers' Association
W. R. Ballard,
Secretary-Treasurer.

Vol. XIX, No. 3. College Park, Maryland. March, 1942.

Freezing Vegetables. The comparatively new method of preserving vegetables is coming rapidly to the front. The development of unit lockers has given considerable impetus to the movement. Not all vegetables nor all varieties are suitable for such use and methods of handling vary considerably for the different types.

A mimeograph information chart indicating procedure in freezing different kinds of vegetables has been prepared by the Horticultural Department. The vegetables listed include asparagus, lima beans, snap beans, broccoli, carrots, sweet corn, whole cut and sweet corn on the cob, peas, and sweet peppers. Data given in the chart covers qualities desirable for freezing storage, harvesting, handling, preparing, scalding, packing, and recommended containers.

A copy will be sent to any member who may contemplate work along this line. If more detailed information is needed, the original publication from which this information is taken should be secured. This is U.S.D.A. Miscellaneous Extension Publication No. 47.

Starter Solutions. The use of Starter Solutions, particularly in setting out transplanted plants, is rapidly being adopted by commercial growers. These solutions are essentially water soluble mixtures, containing various fertilizing chemicals, together with some of the growth promoting substances. These Starter Solutions are made up in various ways, but tests indicate that the one made by the Miller Chemical and Fertilizer Corporation, Baltimore, is one of the best of these.

Their action seems to be in providing newly set plants with readily available nutrients which enables them to establish themselves quickly. Tests indicate marked stimulus in the early period of plant growth, but this lead is cut down later in the season.

A Vitamin C Calendar. Food lists for meeting the dietary requirements usually specify "Citrus fruit or tomato" to cover the vitamin C. This is the simplest way to say it because these foods are available the year around, and 1/2 cup and 1/4 cup, respectively, will cover the needs. There are many other ways, however, of meeting the requirement, especially during the summer months. In a rural community, fresh homegrown fruits and vegetables in season can easily meet the needs. As illustration of this a "Vitamin C Calendar" for southern Michigan is given herewith. Anyone familiar with the foods in season in a given community and with the vitamin C content of foods could easily make a similar one for that section.

VITAMIN C CALENDAR - FOR SOUTHERN MICHIGAN

Daily requirement ..... 70 - 100 mg.
One medium orange provides 80 mg.

May	mg.
rhubarb.....	24
green onions	8
radishes.....	15
dandelion greens...	25

June		mg.
leaf lettuce	100g.	10
onions.....	100g.	8
greens.....	100g.	25
strawberries.	200g.	50
(end of month)		93

July		mg.
strawberries	200g.	50
new peas	2 serv.	30
new potatoes	200g.	50
		130

Aug.		mg.
new potatoes	2 - 3	30
tomatoes	2	52
early apples	2 - 3	24
		106

Sept.		mg.
peaches....	2 - 3	40
pears.....	1	5
sweet corn ears	2-3	20
cantaloupe.	1 med.	50
		115

Oct. and Nov.		mg.
apples	4 med.	32
potatoes	3 med.....	40
cabbage	10 g.	50
		122

Dec.		mg.
potatoes 3 sm. (old)		18
apples 3 - 4		20
cabbage 100 g. (raw)		50
cherries 200g. (can)		12
		100

Jan.		mg.
or		
cabbage 1c. (raw)		50
turnip		20
potatoes		18
apples		18

Feb.		mg.

Mar.		mg.

Apr

Canned tomatoes used freely all during winter months will further safeguard the diet.

NEWS LETTER

Issued by

The Maryland Vegetable Growers Association
W. R. Ballard,
Secretary-Treasurer.

Vol. XIX. No. 4. College Park, Maryland. April, 1942.

Victory Gardens

Under the above title the Extension vegetable garden bulletin has been revised and re-issued as Extension Bulletin No. 94. The material has been brought down to date and some new material added. Vegetables are classified on the basis of their hardiness and a list of varieties recommended for the home garden is given. The average date of last killing frost in the spring and the average date of the first killing frost in the fall for the various conties, together with the number of growing days is recorded. A vegetable calendar for Maryland showing the range of planting and harvesting dates may be found useful.

Four garden plans for varying sized gardens are included as well as information concerning control of pests and storage arrangements for vegetables are given. Production notes for special vegetables also occupies some space.

Only a limited edition was printed, but a copy will be sent to gardeners needing advice.

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Yields of sweet corn are sharply limited by the number of plants which can be given adequate room for development on a given area. The number of plants which can be accommodated will depend upon the variety and disposition of the plants on the area.

The New York State Agricultural Experiment Station recently reported upon some tests with hybrid sweet corns and the conclusions are here re-printed:

1. Considerable variation in yield from year to year may be expected from the same space allotment due to variations in temperature and rainfall.

2. The mean yield for 4 years for Seneca Golden was greatest when the seed was drilled in 30-inch rows at a rate to insure a plant stand of one to every 9 inches. In 2 years out of 4 significant increases were obtained by this spacing over the 36-inch drill row spacing with plants 12 inches apart.

3. In 2 years out of 3 of the spacings under comparison in this experiment, maximum yields for Tendergold were obtained when the variety was planted in 30- or 36-inch drill rows with plants 12 inches apart.

4. The maximum yield for Golden Cross was obtained when it was planted in 36-inch drill rows with plants 12 inches apart, altho no significant decrease resulted from other space treatments used in this experiment except when the variety was planted in 30-inch rows with plants 9 inches apart (treatment F). Available planting equipment and the necessity for rigorous weed control should determine whether this variety is planted in check or drill rows.

5. All three varieties matured most rapidly when grown in the largest space allotment, viz., 36-inch check rows or 36 inch drill rows with plants 12 inches apart. They matured the slowest when planted in 30-inch rows with the plants spaced 9 inches apart.

6. There was no significant difference in plant height as the result of the various spacing treatments for any variety.

7. With Seneca Golden the highest degree of tillering was attained when the plants were grown in 36-inch drill rows with plants 12 inches apart. No significant difference in the amount of tillering for Tendergold was found when grown in 36-inch check rows or 36-inch drill rows with plants 12 inches apart. Significantly more tillers were produced by these two treatments than by any others. Significant increases in tillering for Golden Cross were obtained in the 36-inch check and drill row spacings over all treatments.

8. When all three varieties were planted in 36-inch drill rows with plants 12 inches apart, significantly more second ears were produced than for any other treatment except the 36-inch check row system. The number of second ears for all varieties was reduced markedly when planted in 30-inch rows either 9 or 12 inches apart or when planted 9 inches apart in 36-inch drill rows.

9. Length of ears was significantly increased for all three varieties by wider spacing, but no significant difference in ear length occurred when these varieties were grown in 36-inch check rows and 36-inch drill rows with plants 12 inches apart. The least variation was obtained for Seneca Golden for which variety no significant difference in length was found among the first five treatments. Ears grown in 30-inch drill rows with plants 9 in apart were significantly shorter than those grown in 36-inch rows. Tendergold ears grown in 36-inch check rows were significantly longer than those grown in 30- and 36-inch drill rows with plants 9 inches apart and in 30-inch check rows. Ears of Golden Cross were significantly longer when grown in 36-inch check rows than by any other spacing in this experiment except in 36-inch drill rows with plants 12 inches apart.

WRB:MEG

NEWS LETTER

Issued by

The Maryland Vegetable Growers' Association
W. R. Ballard,
Secretary-Treasurer.

Vol. XIX. No. 5. College Park, Maryland. May, 1942.

The Farm Labor Situation in Maryland

The farm labor problem in Maryland is serious. Fewer workers will be available for farm work in 1942 than in 1941. Industry and the Selective Service have taken thousands of young men who formerly worked on farms. The loss of men to industry has been far greater than the loss to the Selective Service. This loss of labor is particularly severe for agriculture and, in spite of the fact that there is a reduced labor force on farms, farmers have been asked to produce more food than ever before.

The real shortage in farm labor will not occur until later in the season. On April 1 of this year there were employed 71,000 people on Maryland farms. It is estimated that by June 1 farmers will need about 90,000 workers. A survey recently made indicates that in 1941, 25,000 persons were employed in tomato canning plants in Maryland. Canners indicate that they will need in 1942 about 31,000 persons. This indicates that the number of persons required in Maryland canning plants in 1942 will be about 6,000 greater than the number used in 1941. The most severe problem as far as farm labor is concerned will occur in connection with the harvesting of canning crops and vegetables for the fresh market.

Farm wages have advanced though not quite as fast as the advance in farm income. In Maryland farm wage rates were in March, 1942 about 33% higher than they were in October, 1940. Farmers have had to pay higher wages in order to maintain enough labor on the farm to carry on the farming operations.

Everything possible is being done to assist farmers in getting an adequate supply of labor this summer. Some of the things which are suggested, many of which are now being put into operation to help alleviate the farm labor shortage in 1942, are as follows:

(1) The exchange of labor among farmers
(2) More custom work
(3) Keep on the farms the people who are needed
(4) Train boys of high school age for farm work (Training and placement programs have been worked out for the use of high school students in the Baltimore and Washington, D. C. areas for farm work this summer)
(5) Make use of prison labor for the harvesting of farm crops
(6) Make use of the labor of persons now receiving unemployment compensation.
(7) Close down all non-essential WPA projects and use these people for farm work
(8) Adopt the slogan, "Work or Fight" and invoke the present legislation to accomplish this purpose as was done in World War I.

It should be kept in mind that an increased production can be obtained without increasing the number of workers in agriculture. This was well demon-

strated in 1941 when apparently there were fewer workers yet a greater production of agricultural products. In the past, many people on the farms have worked only a month or so in the year. They are now being employed more permanently and will work harder and longer hours.

----Dr. S. H. DeVault.

Production of Vegetable Seeds This Year Expected to be Much Larger than in 1941*

Production of 44 out of 50 kinds of vegetable seeds is expected to be larger this year than last because of increased acreages and yields, the Department of Agriculture reported today. Production of these seeds, exclusive of beans, peas, and sweetcorn, may total 31,873,157 pounds, compared with 15,520,443 pounds in 1941--an increase of 105 percent. This is indicated in reports of 117 commercial vegetable seed growers, who produce in the aggregate 90 percent or more of most vegetable seeds.

A production exceeding twice that of 1941 is expected for 19 kinds (listed in the order of largest increases): kohlrabi, Chinese cabbage, Brussels sprouts, chicory, mustard, leek, mangelwurzel, kale, garden beet, cucumber, broccoli, rutabaga, endive, chard, muskmelon, celery, carrot, spinach, and onion. A smaller production this year by the growers reporting is indicated for only 6 kinds: cress, collard, okra, smooth peas, loose-leaf lettuce, and eggplant.

Production of nearly two-thirds of the vegetable seeds in 1941 fell below expectations, while that of about one-third was better than expected. Generally speaking, weather conditions in the spring and summer of 1941 were the most unfavorable in a number of years for the production of many vegetable seeds. Mangelwurzel, Chinese cabbage, endive, winter squash, chicory, garden beet, salsify, cucumber, and rutabaga fell the most below expectations in 1941, while kale, okra, dill, and hybrid sweetcorn exceeded expectations the most.

The expected 1942 acreage of 45 kinds is larger than that of 1941, with the largest increases in kohlrabi, Chinese cabbage, chicory, leek, celery, cauliflower, kale, chard, mangelwurzel, rutabaga, and endive.

Yields per acre 1 1/2 time those in 1941 are expected for 14 kinds, namely, kohlrabi, Brussels sprouts, mustard, chicory, Chinese cabbage, mangel, leek, garden beet, onion seed, muskmelon, broccoli, cucumber, kale, and winter squash. Yields of 23 other kinds are expected to be 2 to 45 percent larger than in 1941.

Onion sets were included in the vegetable-seed survey for the first time in many years. The returns on sets were disappointing, as only a small percentage of the total production in the United States is represented by the figures given in this report.

The 1942 figures for the vegetable seeds are necessarily preliminary because some kinds of seed had not been planted or had been planted only in part, and it is difficult to forecast production 4 to 8 months in advance of harvest. Weather conditions at planting time were more favorable than last year for the small vegetable seeds, but it has been very difficult to contract for the growing of these seeds. Some firms, although anxious to achieve the goals set by the Department, were hesitant to expand their acreage as much as they would have liked fearing a shortage of labor at harvest time.

* This report is from the Bureau of Agricultural Economics, USDA under date of April 20, 1942.

NEWS LETTER

Issued by

The Maryland Vegetable Grower's Association
W. R. Ballard
Secretary-Treasurer.

Vol. XIX. No. 6 College Park, Maryland. June, 1942.

Soy Bean Tests

Considerable interest is attached to planting tests with soy bean varieties being made at the Ridgely Substation. Plantings will have been made on May 20th, June 12th and July 1st for the purpose of determining if this crop can be grown profitably after canning peas have been harvested. Approximately two acres will be included in the test. Beans will be grown both in rows and in drills and the harvested crop will be run through the viner as is done with peas and lima beans. Yield records will be secured and canning tests will be made.

Eight varieties are included in the plantings and these are; Emperor, Jogun, Dansei, Imperial, Giant Green, Toku, Higan, and Willomi.

A few canners have tried the soy beans on a small scale, and the Ridgely tests will undoubtedly be watched closely for indications as to the desirability of growing this new crop under Maryland conditions for canning purposes.

The soy bean is a highly nutritious product and it may become an important commercial crop if problems of production and canning can be satisfactorily worked out.

Report on the Potato Crop

According to Technical Bulletin No. 7 of the United States Department of Agriculture, the potato is the leading vegetable grown in the United States. It is the principal cash crop in many sections of concentrated production and is a cash side line on thousands of farms where a local market is available.

There has been very little shifting in location of producing areas of the country, but a considerable change has occurred in the extent of the acreage of those areas. Year - to - year changes in increases are the principal cause of the seasonal troubles of the industry. Indications are that increases in acreage should be made only when consumptive demands for two or more years show need of increased production. The increased yields per acre in recent years has been beneficial to the industry. Increasing average yields per acre by abandonment of low yielding lands, use of selected seed, better cultural methods, or other means that will not increase costs of production unduly is desirable.

A per capita production of 2.9 bushels, or a total of 365,000,000 to 370,000,000 bushels is the approximate quantity desirable to supply the requirements of normal consumption.

Ten potato market districts have developed in recent years, and marketing has become more orderly.

There are sixty-six large markets in the country which furnish the principal outlets for carload shipments. Motor truck transportation has grown in recent times to move potatoes from the farm to markets within 100 to 150 miles of the points of production. An average of one-third of the potato production of each year is retained on the farms where grown.

This report covers the period 1921-35, but the situation will undoubtedly be greatly disturbed by the impact of the war.

Storage of Vegetable Seeds

The United States Department of Agriculture has just released Leaflet No. 220 under the above title which discusses the necessity of conserving the supply of vegetable seeds, particularly through proper storage of surplus stocks.

Discussing the general principles of seed storage, the author, Eben H. Toole, says, "It must be remembered that a seed is largely made up of living material and that any injury that prevents later development of a normal seedling destroys the value of the seed for crop production. The life processes of a stored seed are very much reduced in intensity in comparison with those of a growing plant. However, increase of seed moisture increases the life activity of the stored seed even though the moisture content is far below that required for active growth or germination. Increase of temperature also increases this life activity. Not much is known about the actual processes leading to the death of seeds, but it would appear that as these life activities take place in storage the living material is gradually weakened and complete loss of viability finally results. These general considerations make it clear that increased moisture in the seed speeds the changes that finally lead to loss of viability, that increased temperature further increases the rate of these changes, and that any exposure to high temperatures and high moisture reduces the potential duration of life of seeds, even before the percentage of germination is reduced. Weakening of seed may result from unfavorable conditions during ripening on the plant (fig. 1), during harvesting, or during curing immediately after harvest; therefore age of seed from harvest may not be a measure of ability to withstand further storage."

All gardeners know that some kinds of seeds keep better than others. Many gardening books list the number of years different vegetable seeds will maintain their viability. Such lists serve as general guides, but with any specific lot of seed it must be remembered that original vigor or vitality and temperature and moisture during storage are much more important than age alone in determining the value of the seed.

In recent experiments a sample of onion seed with an original germination of 94%, when stored at 80°F. and 80 percent humidity, decreased 12% in germination in 3 weeks and showed no germination after 12 weeks. The moisture content during storage was 13.2 percent. After storage at this condition for 9 weeks the particular samples of onion, sweet corn, shelled peanut, and celery seeds used in the experiments were worthless for planting purposes, and there was appreciable to serious loss of viability by carrot, watermelon, spinach, cabbage, pepper, lettuce, okra, cucumber and turnip seeds; only bean, beet, pea, and tomato seeds showed no definite decrease in germination in 9 weeks.

Seeds that are to be subjected for more than a few days to temperatures near 80°F. should be stored at a relative humidity not above 45 percent or protected to maintain a seed moisture content characteristic of 45 percent humidity storage.

Storage of seeds at a temperature between 40°to 50°F. would be suitable if the air humidity is maintained between 50 and 70 percent.

NEWS LETTER

Issued by
The Maryland Vegetable Growers' Association
W. R. Ballard,
Secretary-Treasurer.

Vol. XIX. No. 7. College Park, Maryland. July, 1942.

Potato and Vegetable Show. The State Fair Board has allocated the same amount of funds for the Annual Show as for last year. The schedule will remain the same and potatoes and vegetables on this basis are solicited from the members and their acquaintances. The Fair Board has ruled that, in the future, money for membership dues to the Association cannot be taken out of the prize money. This requirement will therefore be eliminated. The Show as heretofore will be held in connection with the annual meetings of the Farm Bureau and affiliated organizations.

The vegetable schedule calls for three heads of cabbage, Flathead and Ballhead and Ballhead types, sixteen yellow onions, twelve carrots, twelve parsnips, sixteen turnips, three Hubbard squash, two three-pound basket of mushrooms.

The potato list will be sent out on request by Dr. R. A. Jehle, University of Maryland, College Park, Maryland.

Soil Erosion. During the pioneer period in this country, little regard was given to the matter of soil erosion. After a tract had been "farmed out", it was too easy to pull up stakes and move on to more productive land. Now the more suitable land has been brought under the plow, and much of it has in fifty or more years eroded to the point where it is no longer profitable to farm.

Much thought is being given to checking the destruction of the productive surface layers of the soil. Studies which have been made reveal how rapidly soil deteriorates when kept under cultivated crops. Annual soil and water losses per acre from five widely separated types of land under conditions of clean tillage and dense cover of vegetation have been tabulated and the results are astounding. The time required for erosion to strip seven inches of the more productive top soil from these five important types of land as estimated on the basis of their respective rates of erosion ranges from 3,900 to 95,800 years under a dense cover to only 16 to 51 years where the land is subjected continuously to clean tillage. The annual water loss ranged from .33% of total precipitation to 9.30% for dense cover as compared with 8.64% to 28.31% for clean tillage.

It is interesting to note in passing that the old idea of a dust mulch to retain the moisture is pretty well out-dated. A dense cover of vegetation such as a blue grass sod prevents water run-off. Data shows only 1/3 to 1/10 as much run-off from grassland as compared with corn land. This slowing of run-off also causes the grassland to absorb much more of the rainfall than is done on clean tilled land.

(over)

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(over)

This data is from the 1938 Yearbook of the U.S.D.A. and anyone interested in soil conservation will do well to read this instructive volume.

Hunger Signs in Crops. The knowledge of soil deficiences in nutrients has recently been summed up in a book with the above title. Illustrated by pictures in color, the effect of deficiencies has been clearly shown. While vegetable crops in general do not appear to be widely affected, characteristic effects with some crops have been noted.

More attention is given to the tomato than to other vegetables, due possibly to the fact that this crop has been studies more than most others.

"Tomato plants and vegetable plants in general may show indications of nitrogen deficiency at any period of growth. In most cases a general indication of deficiency is retarded growth with lack of green color in the stems and leaves. The symptoms may become acute at any stage of development; if the soil is very deficient in nitrogen they may appear in the seedling stage. If there is sufficient nitrogen to support the early growth only, the deficiency symptoms may appear later. If the available supply is maintained through the growth period, but becomes exhausted at the time of fruiting, the symptoms appear suddenly, too late for correction, and the result is economic loss.

"The first symptom of nitrogen deficiency in tomatoes is very slow growth, followed by a change in color. The green of the leaves becomes lighter than normal, fading through shades of green to pale yellow. An early indication is a lighter green color in the tips of the leaves at the top of the plant. These leaves remain small and thin. From a yellowish green the color of the veinschanges to a deep purple, which is accentuated on the under side of the leaf. The stems become hard and fibrous, and they too may become deep purple in color, like the veins of the leaves.

"Roots of nitrogen deficient tomato plants may be more fully developed than the tops in early growth, but they finally become stunted, turn brown and die. Flower buds turn yellow and shed, a symptom apparently associated with reduced leaf area, which limits the amount of chlorophyll. In turn, less carbohydrate is manufactured to support fruiting. The fruit that does develop on nitrogen-deficient plants is small, firm, and pale green in color when overripe, but highly colored when ripe. The yield is reduced.

"Potassium starved plants grow slowly. The plant is stunted and the yield is small. The young leaves become finely crinkled. Older leaves turn an ashen grayish green at first, developing a yellowish green along the margins. The injury progresses from the margin toward the center of the leaflet, causing a bronzing of the tissue which is followed by the development of large, light-colored spots between the larger veins. The affected areas often turn a bright orange color and frequently become brittle. The leaves turn brown and finally die. The stems become hard and woody and fail to increase greatly in diameter, remaining slender. The roots are not well developed. They remain slender and are often brown in color, and secondary thickening does not occur.

"Potassium deficiency may have a decided effect on the shape, solidity, and quality of the tomato fruit. The fruits on plants showing extreme deficiency may ripen unevenly and lack solidity.

"The symptoms of phosphorus deficiency in vegetable crops are slow growth and delayed maturity. Characteristic foliage symptoms are generally less

pronounced than those resulting from deficiencies of some of the other plant foods. Phosphorus hastens fruiting and maturity in most vegetables, however, and it aids plants in absorbing other nutrients. Phosphorus deficiency symptoms appear most readily on young plants a few weeks old and may continue to maturity.

"An early symptom in tomatoes is the development of a reddish-purple color on the under side of the leaf. The color in the web of the leaf may first appear in spots and later spread over the entire leaf with the veins finally becoming reddish purple. The foliage eventually assumes a purplish tinge. The stems are slender and fibrous. The leaves are small and the plant is late in setting fruit.

"Tomato plants suffering from calcium deficiency have yellow leaves on the upper part of the plant, while the lower leaves remain green. This is a distinctive characteristic; in deficiency of nitrogen, phosphorous, or potassium, the lower portion of the plant exhibits discolored foliage, while the upper leaves and stems remain normal. The indications are that calcium is not transferred from the older leaves at the base of the plant to the newer leaves at the top. Calcium-deficient tomato plants are weak, flabby, lacking in firmness or turgidity. The terminal buds die and the stem near the terminal becomes spotted with dead areas. Roots are short, much branched, stubby, bulbous, and dark brown in color.

"Sulphur starvation in vegetable plants in the field is unusual. Symptoms develop slowly in tomato plants. The appearance of the plants is similar to that of plants suffering from an incomplete supply of nitrogen. The lower leaves become yellowish green, the stems are hard and woody, and the roots are well developed and extensive. Both roots and stems are small in diameter. Sulfur-deficient tomato plants have a remarkable capacity for elongation of the stem, which is not the case with plants grown with an incomplete supply of nitrogen, phosphorus, or potassium. Stems of sulfur-deficient plants, though woody and hard, increase in length but not in diameter. The plants are high in carbohydrates and sometimes in nitrogen.

"Tomato plants grown in soil or in sand-nutrient solutions deficient in magnesium, develop leaves that are very brittle and have a tendency to curve upwards. The veins remain dark green while the areas between them become yellow, the yellow color increasing in intensity with distance from the vein. The yellow areas become deeper in color and finally turn brown and break down. The symptoms are most common in the older leaves of mature plants. From time of fruiting the deficiency may become increasingly severe. There is little effect on the stems or the fruit.

"In tomatoes boron deficiency has not been of economic importance and has not occurred generally.

"In tomato plants chlorosis of the young leaves, with little necrosis or dying of tissues appears to be the dominant symptom (of iron deficiency)

"Available evidence indicates that copper deficiency in vegetables is confined to those grown on dark-colored soils, such as the Portsmouth soil types, and on peat and muck. (over)

"Symptoms in tomatoes include very stunted growth of shoots and exceedingly poor root development, dark bluish-green color of foliage, curling of leaves and absence of flower formation, development of chlorosis, and a lack of firmness in leaves and stems.

"Only a few cases of zinc deficiency in vegetable crops have been reported.

"Deficiency of manganese in soils, as demonstrated by the growth of plants, is confined principally to soils that are non-acid or calcareous.

"Mineral deficiency in plants may be modified to some extent by factors other than soil composition. Light temperature, and distribution of the moisture supply have an influence on growth and may affect the nutrients required by vegetable plants and the quantities absorbed. These environmental influence, however, are perhaps not so great as to alter materially the characteristic symptoms due to the deficiency of an element."

NEWS LETTER.

Issued by
The Maryland Vegetable Growers' Association
W. R. Ballard,
Secretary-Treasurer

Vol. XIX. No. 7. College Park, Maryland. August, 1942.

Victory Garden Harvest Shows The national committee, of which Claude R. Wickard, Secretary of Agriculture is chairman, is sponsoring garden shows for the benefit of army and navy relief. Most states have committees and will foster one or more shows of this sort.

The Maryland committee of which Mr. John W. Sherwood is chairman, and Robert Johnson is director is making plans for a garden harvest show at the Fifth Regiment Armory in cooperation with the Baltimore Dahlia Society. The tentative dates are September 20-23. The federated garden clubs, florists, nurserymen, and many other groups will be invited to cooperate in putting on a worth while show.

Various attractions in addition tb the show will be featured. Advanced sale of tickets, probably at 50 cents, and at gate 75 cents, is planned.

Since this is to be a patriotic effort, it merits the support of all who can either exhibit or attend. Funds collected will be used to meet the emergency needs of the families of the men of our armed forces, and will be divided equally between army and navy.

It is understood that plans are under way for a similar display in the District of Columbia. The daily papers are backing these projects and will no doubt give full publicity to the details as they are worked out.

Troubles Multiply A new virus disease is showing up here in the east known as spotted wilt. According to reports it was first noted in California where it attacks dahlias and through this medium has been widely distributed over the country on dahlia tubers. The disease made its first appearance at the University of Maryland on a dahlia plant from New Jersey. On dahlias, yellowish or light green blotches develop on either side of the midvein or between the other veins of the leaves. Later these blotches develop into concentrical zoned spots, the leaf tissues within these spots being yellow or light green. Ultimately the center of these spots die and turn brown. The condition is most pronounced during cool weather, and as the weather becomes warmer the disease becomes partially masked. The disease is not spread through the seed of infected plants. Seedlings from such plants do not develop spotted wilt unless they are innoculated by infected thrips. The causal virus may overwinter in the roots of infected plants and by the shipping of these roots, the disease is spread to new districts, and so causes new infestations.

No effective control for spotted wilt is known, and up to the present time no insecticide has been effective in controlling thrips. Certain precautionary measures may be instituted, however, to hold the disease in check. All plants such as nasturtiums and other plant carriers should be destroyed. Plant beds should be located as far as possible from kitchen gardens, flower beds, and alfalfa. Alfalfa in particular harbors flower thrips during the winter. Care

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should be taken not to obtain plants from any plant beds where the disease is known to have existed in the past. Lastly, infected plants should be rouged as soon as found. Before roguing, if the plants are sprayed with nicotine, many of the thrips will be killed, though this will not give one hundred percent control. If this is not done in removing plants from the field infected thrips may be spread throughout the field and form new infections.

The disease is transmitted by flower thrips and onion thrips. Larvae of these thrips pick up the disease from diseased plants by feeding, and transmit it to healthy plants in the same manner. Symptoms appear on the plants 2 or 3 weeks after infection occurs. It is most serious in coastal regions where no severe freezing weather occurs, and so no reduction in the reservoir of infection and perhaps the flower thrips are extremely abundant in these districts. Frequently spotted wilt occurs in plant beds, and crops set out from such beds are certain to be affected. Since plant beds are usually located near a house, ornamentals and kitchen gardens, infective thrips may readily find their way into the beds.

Concern regarding the disease is not confined to the Pacific, the potential seriousness for some important vegetable crops being much greater. Over a hundred species of plants have been found to be infected by the spotted wilt virus, including such crops as celery; tomatoes, lettuce, peppers, and some beans; such ornamentals as calla lily, aster, nasturtium, tuberous begonias, gloxinias, cineraria, calceolaria, delphinium, petunia, zinnia; among weeds, nettle jimson weed, wild lettuce and mallow. There is a possibility that common winter weeds such as pellitory and chickweed may harbor this virus over winter.

Growers should become familiar with this disease so as to recognize any outbreak. The concentric rings in the yellowish spots are characteristic of this disease and if such are found specimens should be sent in to the Department of Pathology of the University of Maryland, from whom the information above has been gathered.

Fertilizer Situation According to John A. Miller, President of the National Fertilizer Association, as reported in the Fertilizer Review, fully 15 per cent of our crop production is directly the result of the use of commercial fertilizer. Were it not for fertilizers we would have to cultivate 30,000,000 more acres in order to attain our present crop production. During the calendar year 1941, this country used more fertilizer than ever before—— over 9,250,000 tons, which is almost a million tons more than was consumed in the preceding twelve months. For the fertilizer year ending June 30, 1942, we shall have produced approximately 6,300,000 tons of superphate (basis 16 per cent) which is again about a million tons more than for the 12 months ending June 30, 1941. Domestic production of potash has increased to such an extent that the needs of industry are fully taken care of and there is an adequate supply for use as fertilizer.

The nitrogen situation is another story, but it can reasonably be assumed that any shortage in the nitrogen supply that may develop will not be crippling in its effect. We had a considerable shortage of top-dressing nitrogen materials in some sections of the country this past season.

There has been a widespread and persistent rumor among farmers that fertilizers are to be rationed next season. Neither the government, the farmer, nor the fertilizer industry wants fertilizers to be rationed, but if a grave and unforseen shortage in nitrogen should develop later, it may be advisable to intro-

duce some form of rationing to insure the best use in the national economy of such nitrogen as is obtainable. At the present time it appears that the outlook for raw materials from which to make fertilizers, including nitrogen-bearing materials, is sufficiently encouraging to indicate that rationing to the farmer will not be necessary.

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Finished August 15, 1942. HRW.

NEWS LETTER
Issued by

THE MARYLAND VEGETABLE GROWERS ASSOCIATION
W. R. Ballard, Secretary-Treasurer

Vol. XIX. No. 9 College Park, Maryland. September, 1942.

NITROGEN FOR NEXT YEAR The prospects for 1943 are that much less commercial nitrogen will be available for agricultural use because of the large quantities consumed in the manufacture of war explosives. Between 5000 and 6000 tons of nitrogen were used by Maryland growers in 1941.

The situation with regard to nitrogen supplies has led the departments of Agronomy and Horticulture to issue Extension Circular No. 139 entitled "Accumulating Soil Nitrogen by Manure and Cover Crops". It discusses such topics as Manure Conservation, Cover Crops, More Legumes in Rotation for Field Crops, Use of Cover Crops for Vegetables, and Use of Cover Crops, Manures, and Mulches for Fruits.

The summary of recommendations follows:--

1. Use superphosphate in stable gutters and on dropping boards to prevent loss of nitrogen from manure and to balance its plant nutrients.

2. Spread manure and disk in or plow under as soon as possible.

3. Keep manure moist and tightly packed until it can be spread.

4. When row crops follow immediately, plow under any non-legume while it is young and tender. Otherwise, soil nitrogen will be drawn upon temporarily for its decomposition.

5. Legume seed costs are in line with crop returns. Planting legumes wherever possible is an economy particularly while commercial nitrogen supplies are inadequate.

6. Use adapted varieties or strains.

7. Inoculation is cheap; use it.

8. Fertilize legumes liberally with phosphorus and potash.

9. Prepare firm seed bed to insure stand of clovers and other small seeded plants.

10. In crop rotations, use legumes in the grass fields that will persist until the land is plowed.

11. Buy legumeseed early and plant as nearly the recommended time as possible.

12. Cover crops wisely chosen for use in orchards can overcome the need for much commercial nitrogen.

Schedule of Classes for State Vegetable Exhibit. Lord Baltimore Hotel, Baltimore, Maryland, January 12, 13, 14, 1943.

Sponsored by the MARYLAND VEGETABLE GROWERS ASSOCIATION

GENERAL RULES

Exhibits may be entered only by growers and only one entry may be made in each class. No entry fee will be charged.

Exhibits should be sent by prepaid express or parcel post to the State Vegetable Exhibit, Lord Baltimore Hotel, C/O W. R. Ballard, Baltimore, Maryland, and should arrive not later than January 6th. Judging will begin at 10:00 a.m. on January 12th, and no entries will be received after that time.

Arrangements for return of exhibits must be made by the exhibitors, otherwise the exhibits will be disposed of by the Maryland Vegetable Growers Association.

PREMIUM LIST

Class 1. Best 3 heads cabbage, Flathead type-- 1st. $4.00; 2nd. $3.00; 3rd. $2.00.

Class 2. Best 3 heads cabbage, Ballhead type--1st. $4.00; 2nd. $3.00; 3rd. $2.00.

Class 4. Best 16 yellow onions--- 1st, $4.00; 2nd. $3.00; 3rd. $2.00.

Class 8. Best 12 carrots, any variety-- 1st. $4.00; 2nd. $3.00; 3rd.$2.00.

Class 10. Best 12 parsnips-- 1st. $4.00; 2nd. $3.00; 3rd. $2.00.

Class 11. Best 16 turnips-- 1st. $4.00; 2nd. $3.00; 3rd. $2.00.

Class 13. Best 3 Hubbard squash, any type-- 1st. $4.00; 2nd. $3.00; 3rd. $2.00.

Class 15. Best 3 three pound baskets of mushrooms--- 1st. $4.00; 2nd. $3.00; 3rd. $2.00

NEWS LETTER
ISSUED BY
THE MARYLAND VEGETABLE GROWERS' ASSOCIATION
W. R. BALLARD
SECRETARY-TREASURER

VOL. XIX NO. IO COLLEGE PARK, MD. OCTOBER, 1942.

LATE POTATO BLIGHT

The Department of Plant Pathology reports that late blight of the potato has recently been found on potato vines and tubers in all parts of Maryland, and if weather conditions are favorable for its development and control measures have not been practiced, serious losses are certain to result.

The tubers should be harvested as soon as they are "ripened" sufficiently to be safely handled. Unless they can be very carefully sorted and stored under favorable conditions, the crop from fields in which blight has been found on the vines should be moved to the market as soon as possible. If tubers from blighted fields are stored, they should be occasionally inspected and if any blighted tubers are found, they must be removed. The presence of blighted tubers in storage may result in the loss of the entire crop by soft rots which are frequently associated with this disease.

Growers of this crop should equip themselves to control this disease in their fields by spraying or dusting with a copper fungicide. In experiments conducted in Maryland the best results have been obtained with home mad Bordeaux Mixture using 4 pounds of copper sulphate and four pounds of unslackened lime, or six pounds of hydrated lime in 50 gallons of water. For small gardens prepared Bordeaux diluted according to the directions of the manufacturer may be used. A dust containing 15 to 20 per cent copper dust mechanically mixed with hydrated lime may be used, but dusting does not usually control the disease as well as spraying. When rains and fogs are frequent and the dew is slow in drying, the vines should be sprayed or dusted at weekly intervals but when it is dry, intervals of ten days to two weeks are sufficient.

Late blight can be recognized on the vines by the appearance of irregular dead areas on the leaves and stems. When these dead areas are wet with dew or rain they will be covered with a white, mould-like growth which occurs mostly on the lower surfaces. When the disease is prevalent, a distinct blight odor can be recognized. On the tubers it can be recognized by irregular dark sunken areas, on the surface with a brown rot extending into the flesh. Later this may involve the entire tuber and a soft rot may follow.

ECONOMIC PRODUCTION OF VEGETABLES Workers in the Truck Crop Division of the University of California, at Davis, state that the economic production of vegetables during the war emergency is an important consideration, especially under the present program of increased production and in view of a decreasing supply of agricultural labor, equipment, and materials. Some thought should be given to determining which crops can be most economically produced, and which may be grown in a short period in case of a food emergency during the war or immediately after.

Nutritional value is a primary factor in selecting vegetables for a diet. From the standpoint of agricultural economy, however, the amounts of valuable food constituents produced per acre and per acre man-hour must be considered. The known food constituents usually considered most valuable as commonly found in vegetables are proteins, calcium, iron, caloric content, and vitamins A, B, C, and G (riboflavin). All these except iron are listed by Bourne as the dietary deficiences that are likely to occur to a greater or less degree on the continent of Europe at the end of the war.

In this study an attempt has been made to evaluate the efficiency of 26 major vegetable crops on the basis of actual food constituents produced per acre and per acre man hour. From existing information on composition, man-hour requirements and average yields, the amounts of each food constituent per acre and per acre man-hour have been determined for each crop. These figures have provided a basis for computing efficiency rations. This data of course relates to California conditions and the importance of the crops and the ratings might be different under Maryland conditions. However, the conclusions may be of sufficient importance to emphasize the need of giving thought to this approach to grower efficiency.

Based on the yield per <u>acre</u> the highest efficiency rating crops in order of rating are as follows: Spinach, carrots, onions, Irish potatoes, celery, winter squash, cabbate, broccoli, cauliflower. The eight lowest efficiency rating vegetables are, snap beans, cantaloupe, asparagus, radish, cucumbers, market peas, watermelons, lima beans.

In yield of food constituents per acre the ratings are as follows; Spinach, carrots, onions, Irish potatoes, celery, winter squash, cabbage, broccoli, sweet corn, turnip, canning tomatoes, sweet potatoes, lettuce (head), bell pepper, beets, summer squash, table tomatoes, snap beans, cantaloupe, asparagus, radish, cucumbers, market peas, watermelon, lima beans. In the above list snap beans and cantaloupes tied for position, as did also asparagus and radish.

The data presented indicates that certain vegetable crops possibly should be eliminated from production if, in the future, extreme economy of labor and equipment becomes necessary in vegetable production. In view of the present trend of decreasing supply of agricultural labor, some serious consideration should be given to this subject in order to assure the nation an adequate vegetable diet.

<u>THE ANNUAL MEETINGS</u> The dates adopted for the annual meetings in Baltimore are January 12-15. It will soon be time to work up a program and suggestions from the membership are invited by the Secretary. If any live question is bothering you, it is likely that other growers may feel the same way about it. Let's bring them out into the open and see if something can be done about it.

The schedules for the potato and vegetable exhibit are being sent out and if you fail to get one, let the Secretary know so that one can be mailed to you, or if you get more than one, hand it to a neighbor who might be interested in displaying his products.

NEWS LETTER
Issued by
THE MARYLAND VEGETABLE GROWERS' ASSOCIATION

W. R. Ballard - Secretary-Treasurer

Vol. XIX, No. 11 College Park, Md. November, 1942.

A RAINY SEASON The weather reporter at the College Park station reports that the total rainfall up to November 1 amounted to over 51 inches. This is nearly ten inches more than normal and with two months to go. The distribution for the last five months is as follows; June, 5.45 inches; July, 5.46; August, 9.15; September, 2.63; and October, 9.45. The late rains have interfered with late potato digging and it is likely that considerable losses from rot will result.

The factor of weather is one of those uncontrollable elements which the government has been unable to do much about. Its influence on the fortunes of individual growers is sometimes tragic and it is little wonder that farmers have developed a reputation for being conservative. There is always a need to remember the long view, and to consider the downs as well as the ups. Herin lies the advantage of keeping some sort of farm accounts in order to get a picture of these fluctuating circumstances. The wisdom of not putting all the eggs in one basket lies here. The vegetable grower is in a preferred position from one standpoint -- his crops are usually short season types so that his cycles are short. On the other hand it takes longer to get into the livestock or orcharding business and a heavier investment is involved. With the vegetable grower when one crop fails, it is sometimes possible to plow the remains under and still get some returns on a short season catch crop.

GREATER PRODUCTION OF TOMATOES FOR CANNING Under the above title the Maryland Experiment Station has issued Popular Bulletin No. 1 as of April, 1942. The authors are C. H. Mahoney and H. A. Hunter. In the introduction they say, "The tomato is the most important vegetable crop produced in Maryland. The acreage grown in 1941 for canning was 54,800 acres, and the acreage grown for market was 6,900 acres. The pack for 1941 was 6,067,888 cases. The income to growers from the canning acreage was $5,953,000 and from the market acreage $762,000. The tomato is an excellent source of vitamins A and C (ascorbic acid), a good source of vitamin B, (Thiamin), and a fair source of vitamin G (riboflavin). Because of the increased demand for tomatoes and the serious shortage of labor, it is important that growers make use of the most efficient methods of production in order to produce the largest possible yields per acre with a minimum of labor."

Subjects discussed include Soils and Crop Rotation, Fertilizing the Crop, Varieties, Plants, Transplanting and Field Culture, and Harvesting. Members looking for the latest recommendations in the growing of this crop are advised to secure a copy.

Reports are not yet available on the 1942 crop but all indications point to greater demands for tomato production in 1943, than ever before. Growers have had their worries this year due to shortage of labor and to other factors. To this is added for next year doubts as to fertilizer supply, availability of tincans, and gas and tire supply. Much of this can no doubt be overcome by American ingenuity and determination.

THE HOME VEGETABLE GARDEN Indications point to greater stress than ever being placed on the home production of vegetables in 1943. The farm family should, above all others, provide themselves with needed supplies which should include green types such as cabbage, kale, etc., root crops such as potatoes, carrots, beets, turnips, and fruit crops such as beans, tomatoes, sweet corn, peas. There is considerable latitude of choice in these three groups and the selection should depend upon personal likes and dislikes, adaptation of crops to soil and climate, and factors which determine which crops will produce the most returns of the highest quality consistent with the character of the land, availability of fertilizers, materials for pest control, and labor. The garden should be extensive enough to provide vegetables for using fresh, for drying and canning, and for winter storage.

Consumers in the cities and industrial regions will be dependent largely upon commercial production and the farm family should as far as possible avoid the competition with these groups for market supplies.

TEN-TON TOMATO CONTEST Herman L. Hunter, specialist in canning crops has just announced the winners in this annual contest. The contest is divided into two sections, on the basis of acreage. The first group is required to grow from 2 to 5 acres, and the winners were William H. Bringman, first, with a yield of 19.08 tons per acre on 2.93 acres. Second winner was Karl C. Ascherfeld with 15.68 tons on 2.40 acres.

In the larger group with 5 or more acres, first place was captured by Ernest L. Cooper, who produced 19.15 tons per acre on 6.41 acres. Roy C. Enfield won second prize with 15.21 tons per acre on 6.62 acres.

Over 600 growers entered the contest and twenty three of these received certificates for raising ten tons per acre in addition to the 4 prizewinners.

First prize winners will receive $75 war bonds and second prize winners $50 war bonds, contributed by commercial companies interested in the canning industry.

The contest is carried on by the Extension Service in cooperation with the Tri-State Packers' Association.

NEWS LETTER

Issued by
The Maryland Vegetable Growers' Association
W. R. Ballard,
Secretary-Treasurer.

Vol. XIX. No. 12. College Park, Maryland. December, 1942

Come to the Annual Meeting! Questions of vital concern to all vegetable growers will be up for discussion. Here is your opportunity to learn how governmental rules and regulations will directly affect your business. It is only through united effort that pressure can be brought to bear to effect changes in regulations which may work undue hardship on the vegetable industry. In any event you should be familiar with the situation so that you can make any possible adjustments in your set-up.

The list of topics for discussion include a number of live questions, but if you know of other problems demanding concerted action, come to the meeting and make these known.

The morning session will be devoted primarily to problems directly affecting vegetable growers. In the joint meeting in the afternoon, matters of interest to all horticultural groups willbe up for discussion.

The Vegetable Growers' Association should be the clearing house problems affecting vegetable production. To this end the organization should be larger and more representative. The annual dues are only $1.00 per year. Enlist by filling in the blank and send in to the Secretary.

Enroll me as a member of the Maryland Vegetable Growers' Association.

Name _____

Street _____

City _____

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